



- -40-135°C Operating Temperature
- .500" diameter- Compact Size
- +/- .25% Linearity FS
- 30-10,000 psi pressure ranges
- Absolute or Gage
- Media – Liquid, Air, & Gas

DESCRIPTION

The PPS02 is a miniature pressure sensor manufactured for variety of high pressure applications. This silicon pressure transducer has been designed for medical, industrial, and commercial applications. The stainless steel design and high temperature component selection allows the sensor to be used in high temperature (150C available upon request) applications.

The PPS02 series utilizes MEMS piezo-resistive sensors inside of a media isolated SS housing which has superior long term stability and accuracy.

The design is simple, cost effective, and proves reliable for OEM customers. Please contact us for Custom design availability.

APPLICATIONS

- Medical Devices
- Industrial Automation
- Agricultural Equipment
- Chemical Process
- Natural Gas

Maximum Environmental Ratings

Operating Temperature -40°C to 135°C
 Storage Temperature Range -55°C to 135°C

Proof pressure 3x full scale pressure
 Burst pressure 5x full scale pressure

PPS02 Operational Characteristics

$V_+ = 5V, V_- = 0V, \text{ Temperature} = 25^\circ\text{C}$					
PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS
Excitation Voltage	V_{EX}	4.75	5.0	10	V
Excitation Current	I_{EX}		1.5	2.0	mA
Input Impedance		3	5	8	k Ω
Output Impedance		3.5	5	6	k Ω
Hysteresis			.05	.08	%FS
Zero Pressure Output (note 1)	V_{OS}			3	mV
Linearity (note 2)		-0.25		0.25	%FS
Repeatability			+- .05		%FS
Full Scale Output		60			mV
Temperature Error (Span/Offset @ 35C)			.75	1	%FS
Overpressure (note 5)				10	KPSI
Compensated Temperature Range		-10		80	C
Operating Temperature		-40		125	C

Notes: 1) Measured at zero pressure with .5-4.5V option. 2) Defined as best straight line 3) Media Temperature 30C 4) Air Temperature 30C 5) 1.5 times pressure or 10,000 PSI whichever is lower.

Application Information

Package

The body design is made of stainless steel (SS316L), which allows for easy manufacturability and long term stability. Automotive grade vibration proof design for engine mount. Viton O-ring used.

Stability

The silicon MEMS media isolated pressure sensor is mounted to a ceramic base and sealed into the SS housing. Proprietary factory calibration and analysis provide the customer with the most stable product possible with this technology.

Pressure port

1/4" -18NPT and 1/8" -18NPT threads are an option found in the PPT5X and PPT8X series . Other port fittings such as 7/16-20UNF, and 1/4" BSP are available for OEM customers.

Media

The pressure port is tolerant to most media including but not limited to oil, air, gas, some corrosive media, and salt water.

Wetted parts

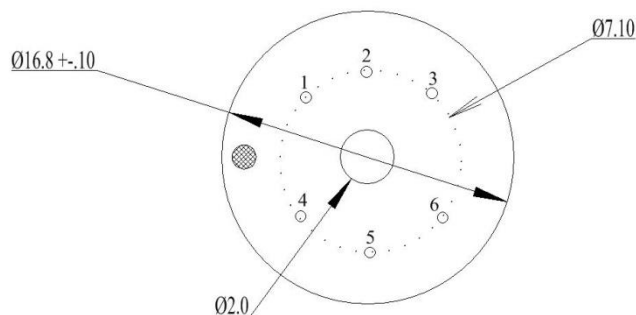
The wetted surfaces are composed of (316SS) stainless steel, or Hastelloy.

Pressure ranges

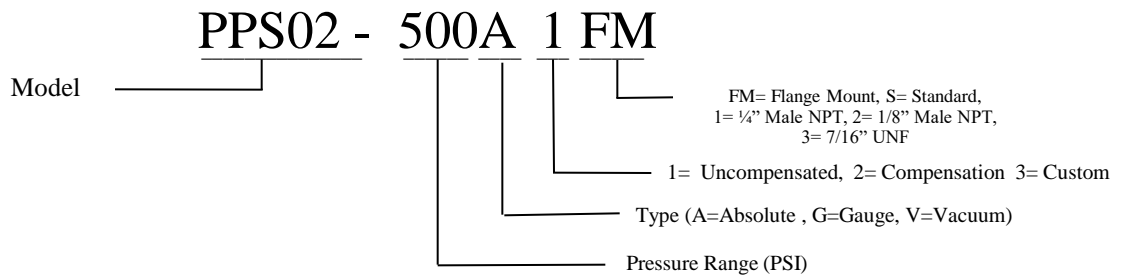
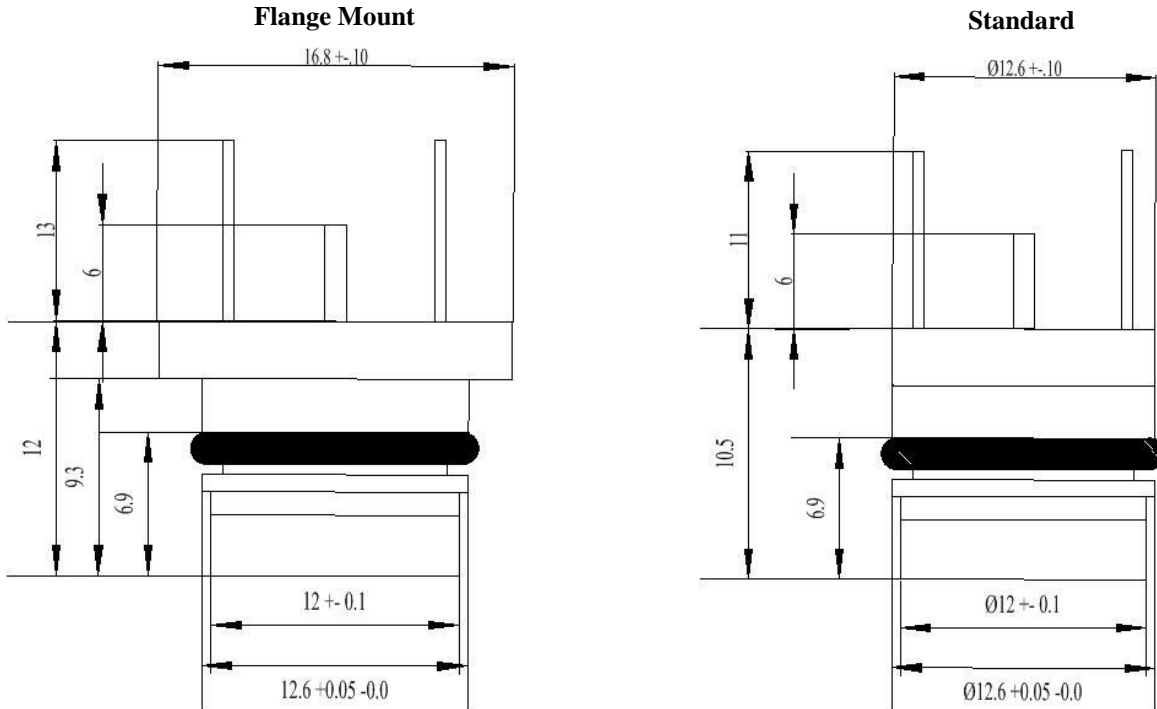
Standard pressure ranges are 500, 1000, 2500, 5000, 7500, and 10000 psi in absolute and gage. Custom pressure ranges are available for OEM customers.

Electrical Connections

Pin	Electrical Connection
1	In-
2	+Out
3	Not Used
4	In-
5	-Out
6	+In



Mechanical Dimensions (mm)



Standard Part Numbers

Model	Pressure Range PSI	Type	Max Over Pressure
PPS02-500G1	500	Gauge	1500
PPS02-1kG1	1000	Gauge	3000
PPS02-3kG1	3000	Gauge	9000

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